

WRDA[®] 24

Mid-Range Concrete Plasticiser

Product Description

WRDA[®]24 is a liquid based concrete plasticiser which is used to improve the workability of cement based mixes and to provide for effective slump retention of concrete when manufactured and placed under high ambient temperature conditions.

WRDA[®]24 can also be used as a water reducing agent, exhibiting moderate retarding properties when used in concrete.

WRDA[®]24 is a multifunctional product, performing as a normal plasticiser / water reducing agent at low dosage levels, whilst at moderate addition rates, medium to high slump concrete can be produced. Alternatively at high dosage rates, large water reductions can be made or extremely high workabilities can be achieved.

It is formulated from selected raw materials and is manufactured under controlled conditions to give a consistent product.

It is based on an aqueous solution of modified organic polymers and meets the requirements of ASTM C-494 Type D and BS EN 934-2.

Advantages

- Effective plasticising action
- Extends the placement time of concrete even at high ambient temperatures.
- Excellent slump retention properties
- WRDA[®] 24 improves surface finish of concrete. Multi-dosage function, universal application
- Harsh mixes can be improved in both the plastic and hardened state using WRDA[®] 24.
- Improved permeability by reducing capillary pores in the hardened matrix
- Allows lower w/c ratios to be used with moderate cement contents

Typical Properties

Appearance	dark brown liquid
Specific Gravity	1.20 at 20°C
Air Entrainment	Air content will normally be increased by 1% to 2%.
Chloride Content	Nil
Freezing Point	0°C

Method of Use

WRDA[®]24 is supplied ready for use. It should be added to concrete mixes during the mixing process at the same time as the water.

It should not be added directly to the cement. No extension of normal mixing time is necessary.

Compatibility with Cements

WRDA[®]24 can be used with all types of Portland, Pozzolanitic and blast furnace cements. It can also be used in mixes containing fly ash and silica fume.

Compatibility with other Admixtures

WRDA[®]24 should not be premixed under any circumstances with other admixtures. While some admixtures can be usefully combined within the same mix the performance of this product may well be affected by the presence of other chemicals and we recommend that GCP Applied Technologies be contacted for advice in all such circumstances.

Addition Rates

Range: 0.5%–1.2% volume by weight of cement

The performance of WRDA[®]24 is best assessed after preliminary tests on site, using the actual concrete materials under consideration to determine optimal effect on properties such as ultimate compressive strength, early rate of gain of strength, etc., when these are of consequence.

WRDA[®]24 should be used at an addition rate of 500 ml–1200 ml per 100 kg cement, the rate of addition will vary according to the nature of the constituent ingredients in the mix, however, dosage levels of 0.5%–0.75% by weight of cement should be used for normal plasticising effect and 0.75%–1.2% for high slump concrete.

Effects of Overdosing

Overdosing of WRDA[®]24 will generally produce a considerable increase in workability and in certain circumstances an increase in air content may be noticeable.

Depending on the degree of overdosing the initial and final set of the concrete may be extended. The effects of overdosing with regards to initial and final set will also be exaggerating when fly ash, blast furnace slag or sulphate resisting cement is used.

Dispensing

It is preferable that liquid admixtures for concrete should be introduced into a mixer by means of automatic dispensing equipment, details of which can be supplied upon request.

Health and Safety

For further information see WRDA®24 SDS (Safety Data Sheet) or consult GCP.

Packaging

WRDA®24 is supplied in 210 litre, non-returnable containers.

Alternatively, 1000 litre IBCs or bulk deliveries can be arranged.

Storage

WRDA®24 should be stored in original containers or suitable closed tanks, preferably out of direct sunlight and protected from extremes of temperature.

Storage Life in Manufacturer's Drums:

12 months from the date of manufacture

Storage Life in Bulk Storage:

12 months from the date of delivery

Technical Service

The Technical Service Department of GCP is available to assist you in the correct and best use of our products. These resources and advice are at your disposal entirely without obligation. Please contact:

GCP

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